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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gerrit Willem Hiddink

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EXAMINER

WONG, BLANCHE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/670,747	Applicant(s) HIDDINK ET AL.	
	Examiner Blanche Wong	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et. al. (EP 1 096 729 A1) (provided by Applicant) in view of Izumi et al. (EP 0 964 534) (provided by Applicant).

With regard to claims 1 and 11, Johnson discloses

a controller to control of transmission of data **(transmitter) (transmitter and receiver elements of the port card of Fig. 2, para. [0024])** at a transmission data rate **(payload data rate)** and to control retransmission of said data at a retransmission of said data at a retransmission data rate **(lower payload data rate) (step 406 in Fig. 4; switches the payload data rate of the packet to a lower data rate, para. [0028], col. 10, lines 5-6)**, wherein said retransmission is performed if an acknowledgement is not received for a current frame **(fail/no confirmation signal) (fail in step 405 in Fig. 4;**

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no confirmation signal from the receiving entity that the packet has been received, para. [0028], col. 9, line 58-col. 10, line 1); and

a rate selection mechanism **(transmitter) (transmitter and receiver elements of the port card of Fig. 2, para. [0024])** that reduces said retransmission rate to a lower transmission data rates **(lower data rate)** only for said current frame if an acknowledgement is not received for a current frame **(fail/no confirmation signal) (fail in step 405 in Fig. 4; no confirmation signal from the receiving entity that the packet has been received, para. [0028], col. 9, line 58-col. 10, line 1).**

However, Johnson fails to explicitly show progressively reduces said retransmission data rate to at least one of two or more lower retransmission data rates.

In an analogous art of data transmitting and receiving, Izumi discloses progressively reduces said retransmission data rate to at least one of two or more lower retransmission data rates **(“Retransmission of data is continued until normal data transmission [with acceptable error, e.g. from a plurality of error bits to 1-bit error in speech transmission] is completed”, col. 4, lines 36-38, para. [0023]).**

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Izumi, with Johnson, for the benefit of improving the reliability with which data is received. Izumi, col. 5, line 27, para. [0030].

With regard to claims 2 and 12, the combination of Johnson and Izumi discloses the wireless communication device of claim 1 and the method of claim 11. Johnson

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further discloses a predefined number. **(attempted three times, para. [0028], col. 10, line 2)**. However, Johnson fails to explicitly show equal rate attempts.

In an analogous art of data transmitting and receiving, Izumi discloses equal rate attempts **(“multiplied by $1/n$ each time transmission is repeated”, col. 5, lines 2-3, para. [0027])**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Izumi, with Johnson, for the benefit of improving the reliability with which data is received. Izumi, col. 5, line 27, para. [0030].

With regard to claims 3 and 13, Johnson further discloses an available signal quality **(best mode implement, para. [0028], col. 9, lines 17)**.

With regard to claims 4 and 14, Johnson further discloses a retry count **(predetermined number of retransmissions, para. [0029], col. 10, line 57)**.

With regard to claims 5 and 15, Johnson further discloses a table of available rates **(the predetermined number of lowering data rates is also the number of available rates) (the predetermined number of retransmissions at the lower payload data rate is preprogrammed and optimized by carrying out trials and experimentation in user environments to determine an optimum number of retries, para. [0029, col. 10, lines 57-41)**.

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With regard to claims 6 and 16, Johnson further discloses at least a portion of rates supported by a receiving station (**[receiving entity in Fig. 5] adjusting its synchronization to receive higher rate data, para. [0030], col. 11, lines 4-5, or no further re-synchronization, col. 11, line 8).**

With regard to claims 7 and 17, Johnson further discloses an algorithm (**an algorithm runs on a computer**) (**[Fig. 4 is] a process carried out by ... a transmitting computer entity in a transmit mode, para. [0027], col. 8, line 56).**

With regard to claims 8 and 18, Johnson further discloses IEEE 802.11 Standard (**wireless local area network, para. [0020] and CSMA, para. [0024, col. 7, line 18).**

With regard to claims 9 and 19, Johnson further discloses a rate fallback mechanism (**transmitter and receiver elements of the port card of Fig. 2, para. [0024]) that restores (next packet) a transmission rate that was in use before (higher data rate) said retransmission rate was reduced (a next packet to be transmitted is again attempted to be transmitted at the higher payload data rate, para. [0026], col. 8, lines 43-45).**

With regard to claims 10 and 20, Johnson further discloses a rate fallback mechanism (**transmitter and receiver elements of the port card of Fig. 2, para.**

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[0024]) that proceeds directly to a fallback state **(lower data rate) (switches the payload data rate of the packet to a lower data rate, col. 10, lines 5-6)** if a signal quality is not sufficient to support a data rate associated with an equal rate retry **(the higher data rate, para. [0028, col. 10, line 3).**

With regard to claim 21, Johnson discloses

a controller to control of transmission of data **(transmitter) (transmitter and receiver elements of the port card of Fig. 2, para. [0024])** at a transmission data rate **(payload data rate)** and to control retransmission of said data at a retransmission of said data at a retransmission data rate **(lower payload data rate) (step 406 in Fig. 4; switches the payload data rate of the packet to a lower data rate, para. [0028], col. 10, lines 5-6)**, wherein said retransmission is performed if an acknowledgement is not received for a current frame **(fail/no confirmation signal) (fail in step 405 in Fig. 4; no confirmation signal from the receiving entity that the packet has been received, para. [0028], col. 9, line 58-col. 10, line 1);** and

a rate selection mechanism **(transmitter) (transmitter and receiver elements of the port card of Fig. 2, para. [0024])** that reduces said retransmission rate to a lower transmission data rates **(lower data rate)** only for said current frame if an acknowledgement is not received for a current frame **(fail/no confirmation signal) (fail in step 405 in Fig. 4; no confirmation signal from the receiving entity that the packet has been received, para. [0028], col. 9, line 58-col. 10, line 1)** and increases transmission data rate for a subsequent frame **(“A decision on data rate**

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transmission is taken on a per packet basis. That is to say each packet is initially attempted to be transmitted at a higher data rate", col. 8, lines 31-33) (The next packet transmission is restored to an initial higher data rate).

However, Johnson fails to explicitly show progressively reduces said retransmission data rate to at least one of two or more lower retransmission data rates.

In an analogous art of data transmitting and receiving, Izumi discloses progressively reduces said retransmission data rate to at least one of two or more lower retransmission data rates (**"Retransmission of data is continued until normal data transmission [with acceptable error, e.g. from a plurality of error bits to 1-bit error in speech transmission] is completed"**, col. 4, lines 36-38, para. [0023]).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Izumi, with Johnson, for the benefit of improving the reliability with which data is received. Izumi, col. 5, line 27, para. [0030].

With regard to claim 22, the combination of Johnson and Izumi discloses the wireless communication device of claim 1 and the method of claim 11. Johnson further discloses a predefined number. (**attempted three times, para. [0028], col. 10, line 2).** However, Johnson fails to explicitly show equal rate attempts.

In an analogous art of data transmitting and receiving, Izumi discloses equal rate attempts (**"multiplied by 1/n each time transmission is repeated"**, col. 5, lines 2-3, para. [0027]).

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Izumi, with Johnson, for the benefit of improving the reliability with which data is received. Izumi, col. 5, line 27, para. [0030].

With regard to claim 23, Johnson further discloses an available signal quality **(best mode implement, para. [0028], col. 9, lines 17).**

With regard to claim 24, Johnson further discloses a retry count **(predetermined number of retransmissions, para. [0029], col. 10, line 57).**

With regard to claim 25, Johnson further discloses a transmission nrate that was in use before said retransmission data rate was reduced **(“A decision on data rate transmission is taken on a per packet basis. That is to say each packet is initially attempted to be transmitted at a higher data rate”, col. 8, lines 31-33) (The next packet transmission is restored to an initial higher data rate).**

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2419
June 1, 2009

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419